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# ISO Assessment of Alternatives in the Grid Planning Process

Integrated Energy Policy Report Proceeding  
Workshop  
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## Objective of the ISO Grid Planning Process

- Maintain reliability of the ISO Controlled Grid
  - Measured against national, regional and local planning standard requirements
- Plan and expand Controlled Grid to ensure a reliable and efficient transmission grid
  - Reliability: load serving and operational needs are met
  - Economic: expansion is least cost for California ratepayers
- Proactively work with all stakeholders to achieve the best solutions for the system



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# Grid Expansion “Tool Box”

- Assessment of transmission inadequacy
  - Detailed system representation
  - Detailed economic information
- Solutions
  - Transmission
  - Generation
  - Demand side/efficiency balanced against load forecast
  - Combination of all above
- Implementation
  - PTO/ISO proposal                      FERC approval
  - ISO approval
  - CPUC approval
  - CEC approval



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# Tri-Valley Example

- Prior to year 2000, a transmission grid inadequacy was identified in the Tri-Valley area of the PG&E system (Dublin, Pleasanton, Livermore).
- A preferred transmission project was identified.
- A pilot-program was initiated to determine if there were reliable cost-effective non-wires alternatives to the transmission project.



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# Tri-Valley RFP

- ISO solicited proposals from generation and load based alternatives
- ISO sought call rights for approximately 175 MW of capacity, in quantities of 1 to 49 MW per resource
- Four entities submitted responses for a total of 264 MW of generation and 30 MW of demand response



## ISO Analysis of Alternative

- Generation and load management proposal achieved the goal of eliminating the overloading and voltage problems for the next five years
- Savings from deferring the transmission project for five years did not justify the cost of the generation and load management proposal
- Transmission project chosen as least cost solution



## Issues That Must Be Addressed

- FERC approval of cost recovery through ISO tariff of non-wires alternatives
- Proliferation of RMR-like contracts
- Comparing long-term “lumpy” transmission projects to non-wires alternatives
  - Is \$/MW comparison appropriate



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# Coordination Resource and Transmission Plans

- The State and the ISO are working together to integrate State planning and procurement proceedings with the ISO Transmission Grid Planning Process.
- Costs of non-wires alternatives could be recovered through CPUC approval
- An objective of the coordination process will be to ensure that all costs and benefits and all alternatives are considered in the development of a comprehensive resource and transmission plan to reliably serve customer load